

IN THE CLAIMS:

Please amend the claims as follows:

1-26. Canceled

27. (Currently Amended) An isolated nucleotide sequence, ~~or its complement~~, wherein the isolated nucleotide sequence encodes the amino acid sequence of SEQ ID No: 15, or its complement, ~~or a fragment thereof comprising at least 400~~ wherein the isolated nucleotide sequence comprises a 1200 bp fragment of a potato class A starch branching enzyme (SBE) gene contiguous nucleic acids amino acids of SEQ ID No: 15.

28. (Previously Presented) The isolated nucleotide sequence according to claim 27 wherein the nucleotide sequence encodes the amino acid sequence of residues 56 to 889 of SEQ ID No: 15.

29. (Previously Presented) The isolated nucleotide sequence according to claim 27 comprising the sequence of nucleotides 289 to 2790 of SEQ ID No: 14.

30. (Previously Presented) The nucleotide sequence according to claim 29, further comprising the sequence of nucleotides 145 to 288 of SEQ ID No: 14.

31. (Previously Presented) An isolated nucleotide sequence, or its complement, comprising nucleotides 228 to 2855 of the sequence labeled psbe2con.seq in Figure 8 (nucleotides 272 to 2899 of SEQ ID No: 18).

32. (Previously Presented) An isolated nucleotide sequence, or its complement comprising the sequence of nucleotides 57 to 2564 of the sequence labeled as psbe2con.seq in Figure 12 (nucleotides 57 to 2564 of SEQ ID No: 19).

33. (Previously Presented) The nucleotide sequence according to any one of claims 27 to 32, comprising an in-frame ATG start codon, and optionally including a 5' and/or a 3' untranslated region.

34. (Previously Presented) The nucleotide sequence according to claim 27, comprising the sequence of nucleotides 45 to 3200 of the sequence labeled as psbe2con.seq in Figure 8 (nucleotides 1 to 3156 of SEQ ID No: 18).

35. (Previously Presented) A nucleic acid construct comprising an isolated nucleotide sequence in accordance claim 27.

36. (Previously Presented) An expression vector comprising a nucleic acid construct according to claim 35.

37. (Previously Presented) A host cell into which has been introduced an isolated nucleotide sequence in accordance with claim 27.

38.-41. (Canceled)

42. (Currently Amended) A method of altering the starch characteristics of a plant, comprising introducing into the plant an isolated nucleotide sequence in accordance with claim 27, operably linked to a suitable promoter active in the plant, so as to affect the expression of a gene present in the plant.

43. (Previously Presented) The method according to claim 42, wherein the nucleotide sequence is operably linked in the anti-sense orientation to a suitable promoter active in the plant.

44. (Previously Presented) The method according to claim 42, wherein the introduced sequence comprises at least one region selected from the group consisting of a 5' untranslated region, a 3' untranslated region, and a coding region of the potato class A starch branching enzyme (SBE) operably linked in the sense orientation to a promoter active in the plant, so as to cause sense suppression of an enzyme naturally expressed in the plant.

45. (Previously Presented) The method according to claim 42, further comprising introducing into the plant one or more further sequences.

46. (Previously Presented) The method according to claim 45, wherein one or more of the further sequences are operably linked in the anti-sense orientation to a suitable promoter active in the plant.

47. (Previously Presented) The method according to claim 45, wherein the further sequence comprises a portion of a class B SBE nucleotide sequence.

48. (Previously Presented) The method according claim 42 or 47, effective in altering the starch composition of a plant.

49. (Currently Amended) A plant, or the progeny of such a plant, or part of such a plant, or a plant cell each having starch characteristics altered by the method of claim 42 or 47.

50. (Previously Presented) The plant according to claim 49, selected from the group consisting of potato, pea, tomato, maize, wheat, rice, barley, sweet potato, and cassava.

51. (Previously Presented) A tuber or other storage organ from a plant according to claim 49.

52. (Canceled)

53. (Previously Presented) The plant according to claim 49, containing starch which, as extracted from the plant by wet milling at ambient temperature, has an elevated viscosity onset temperature as judged by viscoamylograph compared to starch extracted from a similar, but unaltered, plant, wherein the viscoamylograph is performed at atmospheric pressure using the Newport Scientific Rapid Visco Analyser 3C with a heating profile of holding at 50° C for 2 minutes, heating from 50° C to 95° C at a rate of 1.5° C per minute, holding at 95° C for 15 minutes, cooling from 95° C to 50° C at a rate of 1.5° C per minute, and then holding at 50° C for 15 minutes.

54. (Previously Presented) The plant according to claim 53, wherein the viscosity onset temperature is elevated by an amount in the range of 10 to 25°C.

55. (Previously Presented) The plant according to claim 49, containing starch which, as extracted from the plant by wet milling at ambient temperature, has a decreased peak viscosity as judged by viscoamylograph compared to starch extracted from a similar, but unaltered, plant, wherein the viscoamylograph is performed at atmospheric pressure using the Newport Scientific Rapid Visco Analyser 3C with a heating profile of holding at 50° C for 2 minutes, heating from 50° C to 95° C at a rate of 1.5° C per minute, holding at 95° C for 15 minutes, cooling from 95° C to 50° C at a rate of 1.5° C per minute, and then holding at 50° C for 15 minutes..

56. (Previously Presented) The plant according to claim 55, wherein the peak viscosity is decreased by an amount in the range of 240 to 700 SNUs.

57. (Previously Presented) The plant according to claim 49, containing starch which, as extracted from the plant by wet milling at ambient temperature, has an increased pasting viscosity as judged by viscoamylograph compared to starch extracted from a similar, but unaltered, plant, wherein the viscoamylograph is performed at atmospheric pressure using the Newport Scientific Rapid Visco Analyser 3C with a heating profile of holding at 50° C for 2 minutes, heating from 50° C to 95° C at a rate of 1.5° C per minute, holding at 95° C for 15 minutes, cooling from 95° C to 50° C at a rate of 1.5° C per minute, and then holding at 50° C for 15 minutes..

58. (Previously Presented) The plant according to claim 57, wherein the pasting viscosity is increased by an amount in the range of 37 to 260 SNUs.

59. (Previously Presented) The plant according to claim 49, containing starch which, as extracted from the plant by wet milling at ambient temperature, has an increased set-back viscosity as judged by viscoamylograph compared to starch extracted from a similar, but unaltered, plant, wherein the viscoamylograph is performed at atmospheric pressure using the Newport Scientific Rapid Visco Analyser 3C with a heating profile of holding at 50° C for 2 minutes, heating from 50° C to 95° C at a rate of 1.5° C per minute, holding at 95° C for 15 minutes, cooling from 95° C to 50° C at a rate of 1.5° C per minute, and then holding at 50° C for 15 minutes..

60. (Previously Presented) The plant according to claim 59, wherein the set-back viscosity is increased by an amount in the range of 224 to 313 SNUs.

61. (Previously Presented) The plant according to claim 49, containing starch which, as extracted from the plant by wet milling at ambient temperature, has a decreased set-back viscosity as judged by viscoamylograph compared to starch extracted from a similar, but unaltered, plant, wherein the viscoamylograph is performed at atmospheric pressure using the Newport Scientific Rapid Visco Analyser 3C with a heating profile of holding at 50° C for 2 minutes, heating from 50° C to 95° C at a rate of 1.5° C per minute, holding at 95° C for 15 minutes, cooling from 95° C to 50° C at a rate of 1.5° C per minute, and then holding at 50° C for 15 minutes..

62. (Previously Presented) The plant according to claim 49, containing starch which, as extracted from the plant by wet milling at ambient temperature, has an elevated apparent amylose content as judged by iodometric assay according to the method of Morrison & Laignelet, compared to starch extracted from a similar, but unaltered, plant.

63. (Previously Presented) The plant according to claim 49, containing starch which, as extracted from the plant, has a phosphorus content in excess of 200 mg/100 grams dry weight starch.

64-67. (Cancelled)

68. (Previously Presented) A potato plant or part thereof which, in its wild type possesses an effective SBE A gene, but which plant has been altered such that there is no effective expression of an SBE A polypeptide within the cells of at least part of the plant, wherein the alteration is effected by a method according to claim 42 or 47.

69.-72. (Canceled)

73. (Previously Presented) The nucleotide sequence of claim 33, further comprising a 5' and/or a 3' untranslated region.

74. (Canceled)